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UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No.	178.0059
	First Inventor	Rolf Dietrich
	Title	Spoke for a Tensioned...
	Express Mail Label No.	ER 840056013 US

17510 U.S. PTO
10/804504

031904

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	ADDRESS TO: Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450
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- ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
- ☒ Applicant claims small entity status.
See 37 CFR 1.27.
- ☒ Specification [Total Pages 9]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings *(if filed)*
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
- ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
- Oath or Declaration [Total Sheets 13]
 - ☒ Newly executed (original or copy)
 - ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
 - ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- ☒ Application Data Sheet. See 37 CFR 1.76

- ☐ CD-ROM or CD-R in duplicate, large table or Computer Program *(Appendix)*
- Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*
 - ☐ Computer Readable Form (CRF)
 - Specification Sequence Listing on:
 - ☐ CD-ROM or CD-R (2 copies); or
 - ☐ Paper
 - ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

- ☐ Assignment Papers (cover sheet & document(s))
- ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney *(when there is an assignee)*
- ☐ English Translation Document *(if applicable)*
- ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
- ☒ Preliminary Amendment
- ☒ Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
- ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
- ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
- ☐ Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 10/262,315

Prior application information:

Examiner Jason R. Bellinger

Art Unit: 3617

For CONTINUATION OR DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number: 3404 OR ☐ Correspondence address below

Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type)	John C. Purdue	Registration No. (Attorney/Agent)	16,555
Signature	<i>John C. Purdue</i>	Date	3/19/2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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The PTO did not receive the following listed item(s) 12 pages of oath or declaration

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 385.00

Complete if Known

Application Number	New
Filing Date	Herewith
First Named Inventor	Rolf Dietrich
Examiner Name	
Art Unit	
Attorney Docket No.	178.0059

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit
Account
Number
Deposit
Account
Name

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments

☐ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, **except for the filing fee** to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	385.00
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$) 385.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	9	-20** =	0	X	0	=	0
Independent Claims	3	-3** =	0	X	0	=	0
Multiple Dependent						=	

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0

SUBMITTED BY

(Complete (if applicable))

Name (Print/Type)	John C. Purdue	Registration No. (Attorney/Agent)	16,555	Telephone	419-531-0599
Signature		Date	March 19, 2004		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of
Rolf Dietrich

Art Unit

Serial No.

Examiner:

Filed: Concurrently herewith

Atty. Docket: 178-0059

For: SPOKE FOR A TENSIONED
SPOKED WHEEL ASSEMBLY

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Filed herewith is a continuation in part of Application No. 10/262,315, filed September 30, 2002 ("The Parent Application"), claims 1-9 of which were finally rejected on November 19, 2003, 35 USC § 102, as being anticipated by Yamada (US patent No. 3,894,777, 1975). The Parent Application was assigned to Art Unit 3617, and was Examined by Jason R. Bellinger. In response to the final rejection, the applicant proposed to amend pages 3 and 4, the "abstract of the disclosure" and claim 1 of the Parent Application and to cancel claims 8 and 9, and pointed out that the 35 USC 102 rejection is not applicable to the claims with No. 1 amended as proposed, because amended claim 1 and claims 2-7 (which are dependent on claim 1) are directed to a spoke which is required to have two segments, a first having a threaded portion and an unthreaded portion and a given cross-sectional area, and a second adjacent, and extending toward the second end from the first shaft segment, and having a cross-sectional area less than the given cross-sectional area, and that Yamada does not disclose such a spoke. Indeed, the only

disclosure in Yamada of spoke parts having different cross-sectional areas (thicknesses) is in the paragraph which commences in line 15 of column 2. The paragraph reads as follows:

“While, in forming of said flattened portions 14a by pressing, it will be easily understood that it should be avoided to form the portion too thin or otherwise the required mechanical strength at the portion 14a will be lost. Thus it is preferable to prepare each of the spokes formed partially thicker at the position where said flattened portion 14a is to be formed. Further, it will also be easily understood that when luminous performance of said reflecting material 15 is deteriorated, it can be recovered without difficulty by merely replacing or re-painting.”

The proposed response to the final rejection also included the following summary:

“Accordingly, the spoke of claim 1, amended as requested above, is not disclosed by Yamada, and the reference does not bar patenting of the claim under 35 USC 102.”

Nevertheless, an advisory action dated January 27, 2004, refused entry to the proposed amendment, saying that the amendments are not deemed to place the application in better form for appeal.

Claim 1 of the instant application is the same as amended claim 1. As discussed above, it is not anticipated by Yamada, so the question of patentability must be determined under 35 USC 103:

“(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

It has been held that both the claimed structure and the result achieved must be obvious for a reference to make a claim unpatentable under Section 103. In the present case, double butted spokes, and spokes which have a first given diameter over a major length of the spoke and a first end including an externally threaded portion with a second, given diameter which is larger than the first diameter have reduced wind resistance and improved aerodynamic properties by comparison with spokes that have the second given diameter over their entire length. When a spoke nipple or spoke nut is turned on the threaded end of such a spoke, however, until the tension in the spoke gets to be quite high, the spoke end will sometimes turn with the nipple or nut, preventing a desired change in the spoke tension. The spoke of claim 1 solves this problem: the surface of a part of the unthreaded portion of the first segment is shaped to form at least two opposed, flat, torque transmitting surfaces; as a consequence, even when the tension in the spoke is quite high, a desired change in the spoke tension can be made. Accordingly, the structure of claim 1 and the result achieved are not obvious from and claim 1 and dependent claims 3-8 are patentable over Yamada.

The advisory action states "an additional reference character is required (in Fig. 3) to indicate the thickened portion at the second end of the spoke, and a description of this subject matter must be provided in the specification." In the application being filed, there is a reference numeral in Fig. 3 for the thickened portion at the second end of the spoke, and this thickened portion is described.

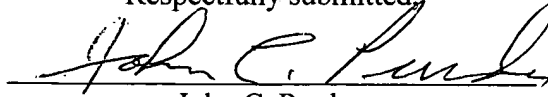
In addition, Fig. 5, a description of the embodiment of the invention shown in Fig. 5 and claim 9 have been added to the application being filed. Fig. 5 shows an embodiment of the invention

The spoke according to the invention shown in Figs. 1 and 2 has a central region 12 (diameter 58 thousandths of an inch) and an end region 14 (diameter 80 thousandths of an inch. A portion 16 of the end region 14 is threaded, while there are flats 20 on the rest of the end

region 14. The spoke of Fig. 5 differs in that the portion corresponding with the end region 14 has a diameter of 58 thousandths of an inch, relying on the proximity of the flats to the threaded portion to prevent rotation. Claim 9 is generic to the spokes of Figs. 1 and 2 and to that of Fig. 5.

Favorable action is respectfully solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "John C. Purdue", is written over a horizontal line.

John C. Purdue

Registration No. 16,555

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